

**FOG1500 Extra high Dynamic Range Closed-loop Fiber Optic Gyroscope****Mini Size Gyro**

FOG1500 is one device designed with the best performance of the dynamic range; up to 1500deg/sec Operating at the wavelength of 1550nm, this waveband the light transmits with the lowest insertion loss. The gyro ASE light source has a high output power together with the good wavelength stability. This state-of-the-art closed loop fiber optic gyroscope (FOG) designed and developed entirely in-house. The FOG Photonics delivers superior precision and reliable performance at lower cost and smaller size than other comparable gyros, especially other FOGs.

**Product features**

- Closed loop fiber optic gyroscope
- High accuracy, low noise sensor
- All "Solid State" containing no moving parts
- Digital and/or Analog output Available as 1-2-3-4 axes configuration
- High resolution Low latency Lightweight package
- Temperature modeled Reduced magnetic sensitivity
- Provisions for extra processing capabilities
- Ruggedized packaging
- Great performance with harsh dynamic conditions

**Applications**

The FOG solutions are versatile and suitable for a wide variety of demanding applications such as:

- Navigation
- Missile and Torpedoe guidance
- Flight controls
- UUV/UAV/ Target Drones guidance and control
- Gyro compassing / target acquisition systems
- Camera/mapping
- AHRS
- Motion compensation
- EO/FUR/Radar stabilization
- Line-of-sight tracking / Precision pointing
- Smart munitions
- Gimbal control

**Specifications**

| Parameter                                   | Units    | FOG1500  |
|---|----------|--|
| Angular Random Walk (noise)*                | °/hr     | 0.07   |
| Bias stability                              | °/hr     | ≤0.1(10s,1σ)   |
| Bias Repeatability (day to day)             | °/hr(1σ) | 0.1  |
| Scale factor repeatability                  | ppm(1σ)  | ≤50  |
| Scale Factor Non-Linearity (max rate, 25°C) | ppm,(1σ) | ≤50  |
| Dynamic Range (Angular Rate)                | °/sec    | ±1500  |
| Band width                                  | HZ       | >100   |
| Dimension                                   | mm       | 68.5x68.5x32   |
| Weight                                      | g        | 270g   |
| Magnetic field sensitivity                  | /hr/Gs   | < 0.005 ° /hr/Gs                                       |
| Operation temperature                       | °C       | -50-+80  |
| Storage temperature                         | °C       | -55-+85  |
| Shock                                       | g        | 40g, 11 msec, sawtooth                                 |
| Vibrations                                  | g        | 16g(20-1500HZ)   |
| Interface                                   |          | RS422 Or OEM   |
| Power supply                                | V        | ±5V  |
| Power consumption                           | W        | <5W  |
| MTBF  | Hours    | 20000  |
| Baud Rate**                                 | Kbps     | Typ 460.8kbps (User selectable 9.6 Kbps to 921.6 Kbps) |
| Data Rate***                                | Hz       | Typ 500Hz (User Selectable 1 to 1000 Hz)               |

**Note:**

\* Random Walk determined by Allan variance method

\*\*,\*\*\*:Optional Parameter for Customer